

C L A I M S

1. Face-to-face weaving machine provided to form a shed
5 between warp yarns during successive weft insertion
cycles and each time to insert one or more weft
yarns into this shed, so that two backing fabrics
(12),(13) may be woven simultaneously above one
10 another, comprising upper (5) and lower spacers (6),
which are provided in order to extend between the
said backing fabrics (12),(13) in the warp direction
during weaving and a weft insertion device
(2),(3),(4) designed to insert weft yarns (22)
15 between the upper (5) and the lower spacers (6),
characterized in that the spacers (5),(6) are
carried out as a rigid element with a first part
(5c),(6c) to form loops and with a second part
(5B),(6B) linking up with it, in that the vertical
20 intermediate distance between the first parts
(5c),(6c) of the upper (5) and the lower spacers (6)
is shorter than the vertical intermediate distance
between the two second parts (5B),(6B) of the upper
(5) and the lower spacers (6), and in that the said
25 weft insertion device (2),(3),(4) is designed to
insert weft yarns (22) between the said second parts
(5B),(6B) of these rigid elements.
2. Face-to-face weaving machine according to claim 1,
30 characterized in that the spacers (5),(6) are
provided in order to keep at a distance the weft
yarns (22) inserted between them, and in that the
first parts (5c),(6c) to form loops comprise at
least two parts of a different height, so that the
said distance may be modified.
- 35 3. Face-to-face weaving machine according to claim 1 or

2, characterized in that the weaving machine comprises a stationary weaving frame (8) to support the upper spacers (5).

- 5 4. Face-to-face weaving machine according to anyone of
the preceding claims, characterized in that the
weaving machine comprises a weft insertion device
(2),(3),(4) designed to insert each time at least
10 three weft yarns (14),(15),(22) at different
insertion levels during the successive weft
insertion cycles.
- 15 5. Face-to-face weaving machine according to anyone of
the preceding claims, characterized in that at least
one upper (5) and/or at least one lower spacer (6)
comprises a cutting device (30) in order to cut
through the weft yarns (22) inserted between the
upper (5) and the lower spacers (6).
- 20 6. Face-to-face weaving machine according to anyone of
the preceding claims, characterized in that the
weaving machine is designed for weaving
simultaneously two fabrics with pile loops and a cut
pile.
- 25 7. Face-to-face weaving machine according to anyone of
the preceding claims, characterized in that the
weaving machine is provided with a four-position
jacquard machine.
- 30 8. Method for weaving fabrics with pile loops, by means
of which each time at least three weft yarns
(14),(15),(22) are inserted above one another at a
respective insertion level on a face-to-face weaving
35 machine during successive weft insertion cycles, an
upper (12) and a lower backing fabric (13) being

woven from respective backing warp yarns (16), (17), (18), (19) and backing weft yarns (14), (15), first and second loop weft yarns (22) being inserted between the two backing fabrics (12), (13) and kept at a distance of the two backing fabrics (12), (13), the first pile warp yarns (23-28) being interlaced in the upper backing fabric (12) and forming a pile loop over at least one first loop weft yarn (22) alternately, second pile warp yarns (23-28) being interlaced in the lower backing fabric (13) and forming a pile loop over at least one second loop weft yarn (22) alternately, and the first and the second loop weft yarns (22) being removed thereafter, so that two fabrics with pile loops are woven simultaneously, characterized in that a number of pile warp yarns (23-28) are interlaced in the upper (12) and in the lower backing fabric (13) alternately and thereafter are cut through between the two backing fabrics (12), (13), so that on both fabrics also at least one zone with a cut pile is obtained.

9. Method for weaving fabrics with pile loops according to claim 8, characterized in that it is carried out with the help of a four-position jacquard device.

10. Method for weaving fabrics with pile loops according to claim 8 or 9, characterized in that with a number of pile warp yarns (24), (25) both cut pile and pile loops are formed.

11. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 10, characterized in that in a number of warp yarn systems a first and a second pile warp yarn are made to form together a cut pile over the same weft yarns in order to create

5 pile points with a double pile, and in that for at least one zone of the fabrics the proportion between the number of pile points with a double pile and the number of pile points with only one single pile is determined as a function of the pile density desired.

10 12. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 11, characterized in that upper (5) and lower spacers (6) are carried out as a rigid element and, extending in the warp direction, are provided between the said backing fabrics (12), (13), and in that the first and the second loop weft yarns (22) are inserted between the
15 said upper (5) and lower spacers (6), because of which they are kept at a distance from the upper (12) and the lower (13) backing fabric respectively.

20 13. Method for weaving fabrics with pile loops according to claim 12, characterized in that the said spacers (5), (6) are carried out as a rigid element with a first part (5c), (6c) to form loops and a second part (5B), (6B) linking up with it, in that the vertical intermediate distance between the first parts
25 (5c), (6c) of the upper (5) and the lower spacers (6) is shorter than the vertical intermediate distance of the second parts (5B), (6B) of the upper (5) and the lower spacers (6), and in that during weaving, the said weft insertion device (2), (3), (4) inserts
30 weft yarns (22) between the said second parts (5B), (6B) of these rigid elements.

35 14. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 13, characterized in that during successive weft insertion cycles each time a backing weft yarn (14) for the upper backing

fabric (12), a backing weft yarn (15) for the lower backing fabric (13), and a first and a second loop weft yarn (22) are inserted alternately.

- 5 15. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 14, characterized in that in a number of warp yarn systems with a first and/or a second loop forming pile warp yarn (23-28), also a third pile warp yarn (23-28) is provided,
10 which is interlaced in the upper (12) and the lower backing fabric (13) alternately and thereafter is cut through between the two backing fabrics (12),(13), so that in at least one fabric, both a cut pile and pile loops are obtained.
- 15 16. Method for weaving fabrics with pile loops according to claim 15, characterized in that in at least one fabric, with respect to weft yarns (14),(15) inserted during successive weft insertion cycles, a
20 third pile warp yarn (23),(24),(25) is interlaced over a backing weft yarn (14),(15) alternately to form cut pile legs and a first or a second pile warp yarn (23),(24),(25) forms a pile loop over a loop weft yarn (22), so that in at least one fabric a
25 zone with a pile loop and two cut pile legs is obtained.
17. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 16, characterized in
30 that in at least one zone of at least one fabric all pile warp yarns (23-28) are woven in, so that the backing fabric (12),(13) is visible from the pile face of the fabric.
- 35 18. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 17, characterized in

that in at least one of the fabrics a number of pile warp yarns (23-28) is interlaced in the backing fabric (12),(13) and bent on the pile face over at least one backing weft yarn (14),(15) alternately, so that also at least one zone with a ribbed structure, more particularly a false bouclé, is obtained.

19. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 18, characterized in that in at least one of the fabrics a number of pile warp yarns (23-28) is interlaced in the backing fabric (12),(13) and floating along the pile face, runs over several backing weft yarns (14),(15), so that also at least one zone with a flat fabric surface is obtained.

20. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 19, characterized in that in the backing fabrics tension warp yarns (20),(21) are provided and in that dead pile warp yarns (23-28) are woven in in one or both backing fabrics (12),(13), either running along with the tension warp yarns (20),(21) or floating along the pile face over one or more backing weft yarns (14),(15).

21. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 20, characterized in that in a number of warp yarn systems two pile warp yarns (23),(28) are interlaced in opposite phase in the upper (12) and the lower backing fabric (13) alternately and thereafter are cut through between the two backing fabrics (12),(13), so that also at least one zone with a cut pile is obtained.

22. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 21, characterized in that tension warp yarns (20),(21) are provided in the backing fabrics, and in that the pile warp yarns (23-28) are interlaced over at least one backing weft yarn (14),(15), which has been woven in on the back with respect to the tension warp yarns (20),(21).
23. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 22, characterized in that tension warp yarns (20),(21) are provided in the backing fabrics, and in that the pile warp yarns (23-28) are interlaced over at least one backing weft yarn (14),(15), which has been inserted on the pile face with respect to the tension warp yarns (20),(21).
24. Method for weaving fabrics with pile loops according to anyone of the claims 8 to 23, characterized in that pile warp yarns are used which shrink after having been cut through.
25. Fabric with pile loops, characterized in that it comprises at least one zone with a cut pile and is manufactured according to a method according to anyone of the claims 8 to 24.